

Current U. S. Patents

► A CONTRACEPTIVE device that is finding increasing use around the world to control human births and reduce the population explosion, a curved piece of plastic known as the Lippes Loop, was granted a patent by the U.S. Patent Office.

Its inventor, Dr. Jack Lippes of the State University of New York at Buffalo, was in India to check on use of the device there when the patent was awarded. India has one of the highest birth rates of any country in the world.

The Lippes Loop is cheap, safe and has proved effective during widespread testing. Although future research is expected to bring other birth control methods fulfilling these basic requirements, many millions of the Lippes type may be used before that day comes.

At least half a million Lippes Loops are now being used in the U.S., India, Taiwan and Korea. They are distributed abroad through Planned Parenthood Federation of America.

A key feature of the device for which Dr. Lippes was awarded patent 3,250,271 is the kind of plastic from which it is made. This plastic has a "memory" so that after it is molded into the desired shape, it can be straightened out for insertion, but will then return to its previous curved shape.

No one knows exactly how the Lippes Loop or any other form of intrauterine contraceptive device, or IUCD, actually prevents conception. All that is known is that any foreign object in the uterus in some way stops fertilization.

Although IUCD's cost only a few cents, the physician's charge for insertion can be quite high. However, once inserted, the device can remain effective for years. It is, therefore, more desirable for use in developing countries than today's birth control pills that have to be taken regularly and may cost as much as \$25 for a year's supply.

Other Interesting Patents

Using optical fibers to transmit images and a method of making a bundle of such fibers so that the light in each does not interfere with the others was awarded patent 3,247,756. Dr. Walter P. Siegmund of Woodstock, Conn., assigned rights to American Optical Company, Southbridge, Mass.

Tiny semiconductors can be made even smaller, thanks to a method of applying a protective coating to them developed by Drs. John A. Perri and Jacob Riseman of Poughkeepsie, N.Y., who assigned rights to patent 3,247,428 to International Business Machines Corporation.

Patents 3,248,667 and 3,248,668 covering lasers made from calcium tungstate having small added amounts of either thulium or holmium were granted to Leo F. Johnson of North Plainfield, N.J., and Kurt Nassau of Springfield, N.J., who assigned rights to Bell Telephone Laboratories.

• Science News, 89:423 May 28, 1966

MEDICINE

Diet Helps Children With Acute Leukemia

► CHILDREN suffering from acute leukemia, a fatal malignancy of the blood-forming organs, could live longer on a special low-protein diet free of the substance purine, it is hoped.

A team of Polish scientists reported that a greater number of children with leukemia must be studied, but that 13 leukemic children have responded to the special diet.

"The encouraging results of our observations require confirmation on a larger series of cases," the scientists said. However, the use of such a diet or some modification of it in acute leukemia, if their observations are confirmed, "may contribute to the prolongation of the life-span of children."

Drs. Boguslaw Halikowski, Jerzy Armata and Stanislaw Garwicz of the Second Paediatric Clinic, Medical Academy, Cracow, Poland, reported the findings.

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Special Awards Given

(Continued from p. 422)

Ind., for "Effect of Surface on the Cholesteric Phase" (Alternate: Carolyn C. Gerhardt, 18, Terry Parker Sr. H.S., Jacksonville, Fla.); Aerospace Dynamics—Scott A. Jenkins, 15, Valley H.S., Albuquerque, N. Mex., for "Disturbance Theory for Rocket Drag Reduction" (Alternate: Greg Solberg, 17, Bottineau H.S., Bottineau, N. Dak.); Aerospace Electronics and Communications—Howard S. Katz, 17, Springbrook H.S., Silver Spring, Md., for "Complete Video Recording System" (Alternate: Howard S. Weiss, 17, Conard H.S., West Hartford, Conn.); Aerospace Environmental Sciences—Curtis Bryant, 16, Le Mars Community

H.S., Le Mars, Iowa, for "Studying the Solar Atmosphere" (Alternate: Dale E. Fitz, 17, Arnett H.S., Arnett, Okla.); Aerospace Medicine—Letantia B. Janowski, 18, Immaculate Conception H.S., Lodi, N.J., for "Radioprotection and Immunosuppression" (Alternate: Felice R. Tillman, 18, Metairie Park Country Day School, Metairie, La.); Aerospace Physics—H. Grady Rylander III, 18, Austin H.S., Austin, Texas, for "Construction of a Metal-Oxide-Surface Field-Effect Transistor" (Alternate: Eddie G. Napps, 18, Longview H.S., Longview, Texas); Aerospace Psychological and Social Sciences—Rick P. Johnson, 17, North H.S., Evansville, Ind., for "Physical and Psychological Effects of Rapid Acceleration on Mice" (Alternate: Debra J. Towry, 15, Northwestern Jr. H.S., Natchitoches, La.); Aerospace Propulsion—Jeffrey B. Bentley, 16, Temple H.S., Temple, Texas, for "Effects of Oscillations on Solid Propellant Burning Rate" (Alternate: Lewis Perdue, 17, Murrah H.S., Jackson, Miss.); Mathematical and Computational Sciences—Jon Pitts, 18, Austin H.S., Austin, Texas, for "Automatic Location of Points From Stereoradiographs" (Alternate: Lawrence D. Meisel, 16, Yorktown H.S., Arlington, Va.).

THE AEROSPACE EDUCATION FOUNDATION OF THE AIR FORCE ASSOCIATION presented precision slide rules to each of the ten winners of the U.S. Air Force Awards.

• Science News, 89:414 May 28, 1966



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